



**MAY 29 • 30 • 31, 1987**

# **SEA • PAC**

**SEASIDE • PACIFIC  
HAM CONVENTION**

OREGON STATE HAM CONVENTION

**Seaside Convention Center**

**Seaside, Oregon**

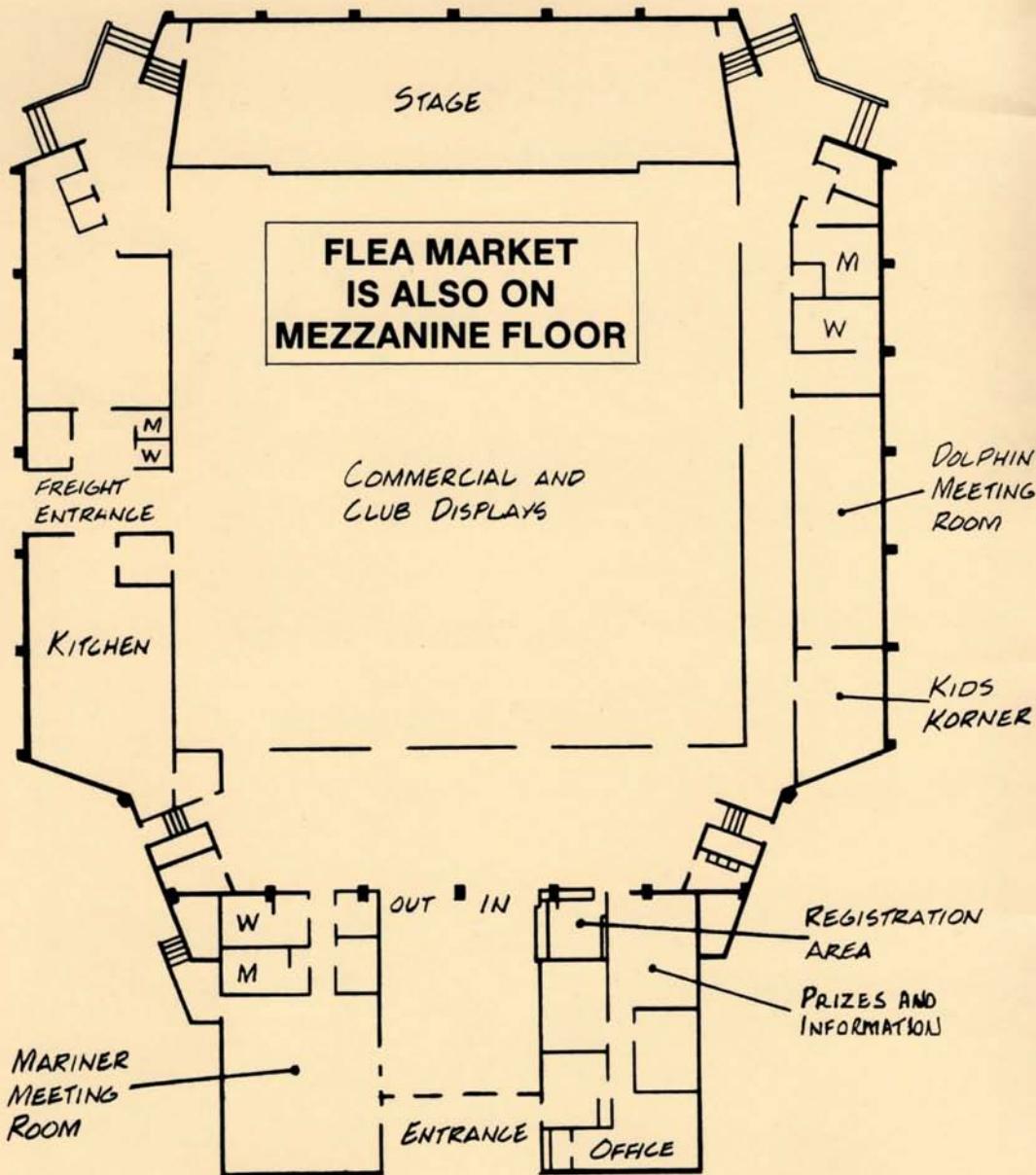


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**OREGON TUALATIN VALLEY AMATEUR RADIO CLUB**

**and the**

**NORTH COAST REPEATER ASSOCIATION**



**FOR CONVENTION  
INFORMATION AND  
ANNOUNCEMENTS,  
LISTEN ON:  
146.52 (Simplex)  
145.45 (-600 KHz)**



# ICOM IC-761

## A NEW ERA DAWNS

- Built-in AC Power Supply
- Built-in Automatic Antenna Tuner
- SSB, CW, FM, AM, RTTY
- Direct Keyboard Entry
- 160-10m/General Coverage Receiver
- Passband Tuning plus IF Shift
- QSK up to 60 WPM

The IC-761 ushers in an exciting new era of amateur radio communications; an era filled with all the DX'ing, contesting, and multi-mode operating pleasures of a fresh new sunspot cycle. The innovative IC-761 includes all of today's most desired features in a single full-size cabinet. This is ham radio at its absolute best!

**Work the World.** The IC-761 gives you the competitive edge with standard features including a built-in AC power supply, automatic antenna tuner, 32 fully tunable memories, self-referencing SWR bridge, continuously variable RF output power to 100 watts in most modes, plus much, much more!

**Superb Design, Uncompromised Quality.** A 105dB dynamic range receiver features high RF sensitivity and steep skirted IF selectivity that cuts QRM like a knife. A 100% duty cycle transmitter includes a large heatsink and internal blower. The IC-761 transceiver is backed with a full one-year warranty and ICOM's dedicated customer service with four regional factory service centers. Your operating enjoyment is guaranteed!

**All Bands, All Modes Included.** Operates all HF bands, plus it includes general coverage reception from 100kHz to 30MHz. A top SSB, CW, FM, AM, and RTTY performer!

**Passband Tuning and IF Shift** plus tunable IF notch provide maximum operating flexibility on SSB, CW, and RTTY modes. Additional features include multiple front panel filter selection, RF speech processor, dual width and adjustable-level noise blanker, panel selectable low-noise RF preamp, programmable scanning, and all-mode squelch. The IC-761 is today's most advanced and elaborate transceiver!

**Direct Frequency Entry Via Front Keyboard** or enjoy the velvet-smooth tuning knob with its professional feel and rubberized grip.

**Special CW Attractions** include a built-in electronic keyer, semi or full break-in operation rated up to 60 WPM, CW narrow filters and adjustable sidetone.

**Automatic Antenna Tuner** covers 160-10 meters, matches 16-150 ohms and uses high speed circuits to follow rapid band shifts.

**Complementing Accessories** include the CI-V computer interface adapter, SM-10 graphic equalized mic, and an EX-310 voice synthesizer.

**You're The Winner** with the new era IC-761. See the biggest and best HF at your local ICOM dealer.



**ICOM**

**First in Communications**

ICOM America, Inc., 2380-116th Ave. N.E., Bellevue, WA 98004 Customer Service Hotline (206) 454-7619  
3150 Premier Drive, Suite 126, Irving, TX 75063 / 1777 Phoenix Parkway, Suite 201, Atlanta, GA 30349  
ICOM CANADA, A Division of ICOM America, Inc., 3071 - #5 Road, Unit 9, Richmond, B.C. V6X 2T4 Canada

All stated specifications are approximate and subject to change without notice or obligation. All ICOM radios significantly exceed FCC regulations limiting spurious emissions. 761287

# Welcome to SeaPac!

*Remember—*

P.R.S. Features Fine Equipment From . . .



KENWOOD



. . . Super Antennas From . . .



. . . And Many Terrific Accessories!

- Consignments Welcome
- Trades? You Bet!

Stop By For A FREE "Lid Operator"  
And Balloons For The Kids!

**AND — Have A Great Convention!**

**PORTLAND RADIO SUPPLY**

1234 S.W. Stark Street • Portland, Oregon 97205  
Telephone: (503) 228-8647

# Special Programs for the Ladies

## **Saturday, May 30**

9:30 a.m. Hallmark Inn Meeting Room #125

### **Get-Acquainted Hour**

Coffee, Donuts and friends, old and new

10:30 a.m. Hallmark Inn Meeting Room #125

### **Drying Flowers and Flower Arranging**

Presented by The Natural Nook

12:00-1:30 p.m. Ladies Luncheon - Shilo Inn - Dolphin Rooms 2 & 3

**FEATURING: Jeanne Bright-Miller, presenting:**

### ***Everything You've Wanted to Know About Antique Silver***

Our guest speaker has been in the antique business since 1947. She has owned a shop, has appeared on the **KOIN Live at Noon** program, and has done local radio station shows on antiques. She is currently teaching at Chemeketa Community College. Jeanne will have a collection of silver objects to show and will answer questions after her luncheon presentation.

*(The luncheon price includes your tip).*

**— We have limited seating, so sign up early! —**

2:00 p.m. Hallmark Inn Meeting Room #125

### **Drug and Alcohol Treatment**

Presented by Barbara Buchanan, from Serenity By The Sea

3:00 p.m. Hallmark Inn Meeting Room #125

### **Heart Care or Cancer Concerns & Care**

Tentatively scheduled at presstime.

## **Sunday, May 31**

9:30 a.m. Hallmark Inn Meeting Room #125

### **Coffee Hour**

Coffee, Donuts and friends

### ***Women's Prizes furnished by:***

**The Natural Nook**  
Seaside, Oregon

**Legg's Broadway Pharmacy**  
Seaside, Oregon

**Bobbi Anton, Tupperware**  
Beaverton, Oregon

# Special Events

## VE Testing

**Saturday, 9:00 a.m.:** Our Saviour Lutheran Church, east wing. Right across the street from the convention center. By appointment, only.

**Saturday, 1:00 p.m.:** Same location. Walk-ins, as space is available. Fee for either session: \$4.35, payable to ARRL/VEC.

## ORRC Meeting

**Saturday, 10:30 a.m.:** Our Saviour Lutheran Church, across the street from the convention center. West wing.

## QCWA Luncheon

**Saturday, 12:00 Noon:** Luncheon host is Leland Smith, W5KL, National President of QCWA. Shilo Inn Whale Rooms 1 and 2. Cost is \$6.00. Due to limited space, this luncheon may be sold out.

## Ladies' Luncheon

**Saturday, 12:00 Noon:** Details are elsewhere in this booklet.

## Repeater Forum

**Saturday, 1:00 p.m.:** Hosted by ORRC and WWARA. Located in west wing of Our Saviour Lutheran Church, across the street from the convention center.

## ARRL Forum

**Saturday, 4:00 p.m.:** West wing, Our Saviour Lutheran Church, across the street from the convention center. Led by Rush Drake, W7RM, Northwest Division Director, Bill Shrader, W7QMU, Northwest Division Vice Director, Randy Stimson, KZ7T, Oregon Section Manager, and Rick Palm, K1CE, ARRL Field Services Department Manager.

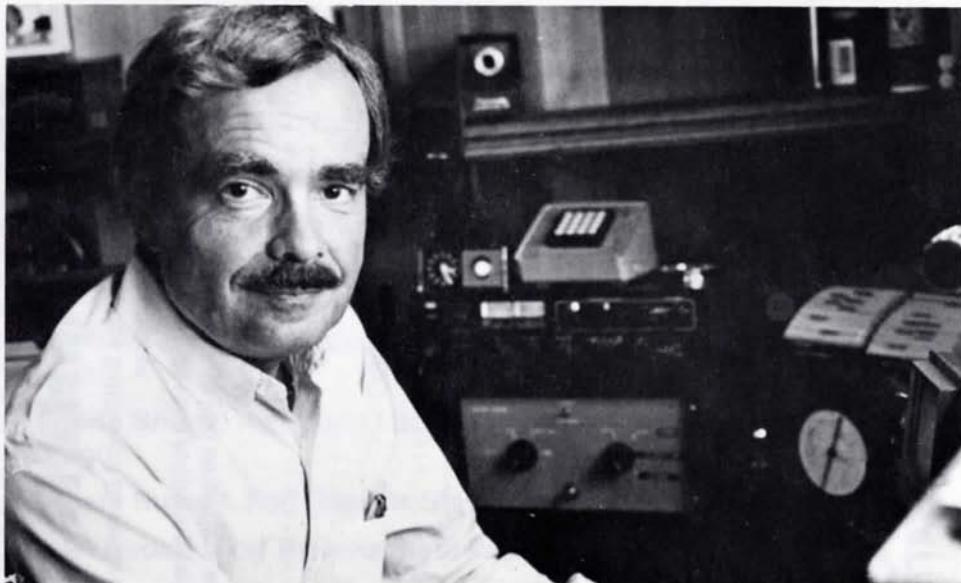
## Banquet

**Saturday, 7:00 p.m.:** Doors open at 6:45 for entrance. This function may be sold out. Featuring Dave Bell, W6AQ, Leland Smith, W5KL, and chapter three of the "Story of a Ham."

## No-Host Breakfast

**Sunday, 7:30 a.m.** This is a sit-down, catered meal, held in the convention center. Cost is \$4.50. Latecomers may not be served, as the room *must* be cleared by 8:45.

## BANQUET SPEAKER, Dave Bell, W6AQ



Dave Bell, W6AQ, is quite a personality and will prove to be a real treat for our banquet audience. He was licensed in 1951 as W8GUE in Andover, Ohio. In 1956, he was DL4NV in Stuttgart, Germany and was a principal operator of DL4USA, originating thousands of phone patches.

In 1960, Mr. Bell moved to Los Angeles, where he was licensed as W6BVN. In 1969, with the help of Senator Barry Goldwater, K7UGA, Arthur Godfrey, K4LIB, Bill Leonard, W2SKE, and many others, Mr. Bell produced "The Ham's Wide World" for the American Radio Relay League. He followed that in 1976 with a film titled "Moving Up to Amateur Radio," with NBC Science Editor Roy Neal, K6DUE, as host. This film is credited with converting many CBers into amateur radio operators. In 1977, Dave operated the CQ Worldwide DX phone contest at CR9AJ's QTH in Macao, using Torres' call. The following year, Dave operated during International Telecommunications Week from 4U1ITU in Geneva, Switzerland, using a special callsign, 4U0ITU.

In 1979, Dave was in Jordan filming "The World of Amateur Radio," which featured His Majesty, King Hussein, JY1. "The World of Amateur Radio" is available from radio societies worldwide. It is hosted by Roy Neal and Dick Van Dyke.

In 1983, Dave returned to Jordan to videotape His Majesty speaking with Astronaut Owen Garriott, W5LFL, as the space

ship Columbia crossed over the Arab world. This scene is part of Roy Neal's videotape presentation, "Amateur Radio's Newest Frontier."

In 1984, Dave was named "DXer of the Year" by the Southern California DX Club and "Amateur of the Year" by the Dayton Hamvention. He is a life member of the ARRL, a board member of the Northern California DX Foundation, and a past President of the Southern California DX Club.

To support his amateur radio activities, Dave is Chairman of DBA Communications, Inc., an entertainment mini-conglomerate which produces documentaries, motion pictures, TV specials and series. Recent efforts include the television movie "Nadia," about the gymnastics sensation, Nadia Comaneci; and the HBO documentaries, "Getting Even — Victims Fight Back," "Missing Persons — Four True Stories," and "America the Poisoned."

Mr. Bell and his wife Sam, N6FTW, live in the hills above Hollywood. Their station consists of a Kenwood TS-930S, Alpha 7800, 5-element monoband yagis for 10, 15 and 20 meters, a two element beam for 40 meters and verticals for 80 and 160.

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**Additional Banquet Speakers:**  
-Leland Smith, W5KL, QCWA National President  
-Rush Drake, W7RM, ARRL NW. Division Director

# 220 MHz is alive and well at Falcon

FALCON produces 8 different Base/Repeater and 9 different Mobile amplifiers. Six of these amplifiers are for the 220 MHz operator.

For example, consider the following two MOSFET Base/Repeater amplifiers. Remember, FALCON is the only manufacturer bringing you amplifiers with the advantages of RF power MOSFET's.

## Model 4112C

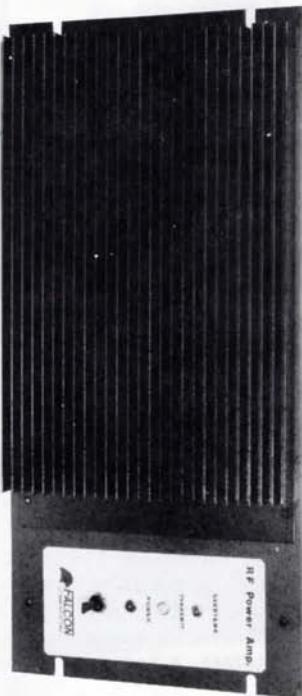
RF Power In.....	10 Watts in - 100 Watts out
RF Power Out.....	1 W to 15 Watts
	10 Watts in - 100 Watts out
	3 Watts in - 50 Watts out

## Model 6135C

RF Power In.....	2 Watts in - 100 Watts out
RF Power Out.....	300 mW to 3 Watts
	2 Watts in - 100 Watts out
	1 Watt in - 70 Watts out

## Features:

- Frequency range ..... 220-225 MHz
- New, long life MOSFET transistors
- Low broadband noise (Low desense)
- Automatic Internal or External Keying
- Use for FM, SSB, CW
- Excellent high order intermod specs
- 8 3/4" x 19" rack panel, 13.8 VDC
- Continuous Duty (With customer fan)
- Built-in Thermal Protection
- 1 Year Warranty
- Made in the U.S.A.



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COMMUNICATIONS

## Speaker Topic Information

**A Beginner's Guide To Ham Radio.** Dee Lynch, KA7NPN, will cover the general operation of a typical amateur radio station. This session is directed to the new amateur or the person who is just interested in what is going on in amateur radio. The session will include audio/visual demonstrations. Dee will allow ample time to answer your specific questions.

**How High Can You Go?** Greg Milnes, W7AGQ, will talk about antenna and tower regulations. Yes, government can still regulate height and you can be required to obtain a building permit. Guess what? The FAA can limit tower height also. Greg was first licensed in 1956 and is quite active in various ham club activities. Professionally he is a circuit court judge for the state of Oregon.

**24 GHz & 47 GHz: New U.S. Distance Records And The Equipment We Used.** Tom Hill, WA3RMX, and Lynn Hurd, WB7UNU, will describe the new SSB rigs which they built for use on the 24 GHz and 47 GHz ham bands and the new distance records which were set using them. They will show slides of the Oregon mountain top expeditions, and will play a tape recording of the actual 115 mile SSB contact on the 12 mm band.

**"Gain" And What Does It Mean To You?** Dave Phemister, WB7ESV, of Larsen Antennas can clear the air on this one. He will start with a definition of gain and how it (is) (should be) determined. The advantages and disadvantages of gain will be discussed, and he will also touch on vehicular antenna placement and grounding. Never again be fooled by the gain-claim-game!

**QRM In Amateur Radio Documentation.** John Hedtke, KD7WS, shows how important good documentation is becoming now that the microprocessor is finding its way into our radio equipment. He will show you what to look for in product documentation before you buy: things that can make owning your next rig a joy, not a nightmare. Great tips from an award winning technical writer and illustrator!

**The Mystique Of Grounding.** Dr. Alan Chandler, K6RFK, will discuss grounding and why it should not be overlooked by ham operators. Included will be some basics on what items should be grounded and how to best accomplish it. Dr. Chandler is Vice President of Engineering at Advanced Electronic Applications, Inc. (AEA).

**Basic Packet Radio.** Sperry H. Goodman, W7AZU, will tell you about getting started and having fun on packet radio, 1987 style. Sperry is Executive Vice President of the Northwest Amateur Packet Radio Association (NAPRA). If you have not experimented with packet radio yet and would like to know more about it, this session is designed for you.

**Putting Up A Tower.** Kenneth Kopp, K0PP, will cover all the nitty gritty details involved in putting up a tower. Kenneth works as a communications technician for Montana Power Company. He has been a licensed operator for more than 35 years and is currently Montana Section Manager for ARRL. He is noted for his down to earth presentations on ham radio related subjects.

**Uncooperative Transmitter Identification (Fingerprinting)** Phil Ferrell, K7PF, along with Bob Rolfness, W7VZX, and George Hadley, Software Wizard, will discuss and demonstrate a new method of identifying/classifying a radio transmitter. The technique requires about a quarter second and uses an FM receiver. An application would permit real-time screening of stations attempting to bring up a repeater from the unique pattern produced by a single "ker-chunk".

*Continued*

**Open Wire Feed Lines.** Lew McCoy, W1ICP, retired from the ARRL after 34 years of service, and upon retiring, was named the Senior Assistant Technical Editor of QST. Lew is now Technical Editor for CQ Magazine. While his vast technical experience would let him speak on just about any amateur radio subject, Lew has chosen to cover the always popular subject of feed lines. In this case, he will explain the differences between open wire feeders and coax. He will allow plenty of time for a question and answer session.

**Novice Enhancement And Repeaters.** Mark Walker, W7CLU, will talk about the new Novice enhancement rules and privileges. Mark is President of ARRG, which is one of the largest repeater groups in the northwest. His talk will be of special interest to Novices (or anyone else for that matter) who are interested in communications via repeater on the 220 MHz band.

**Operation China 1984.** Chip Margelli, K7JA, along with his wife Janet, WA7WMB, operated BY1PK in March 1984 at the invitation of the China Radio Sport Association. Come see the story of the operation and travel in China.

**A Look At Homebrew SSB Equipment.** A high point in amateur radio history was the introduction of single sideband (SSB). The phone bands were alive with the "new Donald Duck" sounds, all originating from rigs built by the user. Hams of the era were active participants in their hobby, rather than passive spectators. An active, homebrew approach is rare today, but is still possible, and provides great fun. Wes Hayward will present sideband circuits suitable for use in homebrew rigs, with emphasis on possible simplifications. He will also cover modern power FET's. Wes is an engineer for Tektronix, where he does applications work concerning charge coupled imaging devices. He has previously worked in radio frequency circuit design.

**History Of Inverted Vee & Sloper, With New Variations.** Ken Glanzer, K7GCO, starts with a history of these well known antennas. Ken is no stranger to the inverted vee—he was instrumental in its development, and wrote the first published article on it. Ken continues to experiment with antennas and will offer some new variations to the traditional configurations for both the inverted vee and the sloper.

**Meteor Burst: A New Dimension In Data Communication.** Packet radio on meteor trails can provide 24 hour per day, 365 day per year data transfer over a range of 300-1400 miles. How well does it work? How reliable is it? What type of equipment is required? What frequencies are best? How much power is required? You will know when you hear this exciting presentation by Tim Pettis, KL7WE. Tim works for Alascom, Inc., and is in charge of operations and maintenance for satellite earth stations and microwave facilities in the Alaska peninsula and the Aleutian chain.

**Basic Traffic Handling.** Brad Wells, KR7L, Port Orchard, WA, will use his training in education, and his vast experience in traffic handling to show how easy and worthwhile it is to have fun handling messages. Brad is Section Manager for Washington, and is active on the Public Relations Advisory Committee (PRAC) for ARRL.

**Let's Build A Receiver.** Roy Lewallen, W7EL, will explain how to design and build a high-performance direct conversion receiver using "ugly" construction. During the talk, an assistant will build the complete receiver from scratch. Its performance will be demonstrated by the end of the session.

**Facsimile.** Don Bremer, KB6LO, will tell how you can receive weather pictures via facsimile. He will also tell how you can transmit and receive facsimile pictures using amateur radio.

*Continued*

**Beginning To Contest...How And Why.** Mark Nelson, AA6DX, has traveled to Belize, Midway, Christmas Island and other exotic places to become rare DX. Now, this veteran contester has consented to share with us his (most?) valuable secrets of success! For the ham new to contesting, or the old master, Mark has some ideas which can be put to work in the very next contest.

**Advanced Traffic Handling.** Vic Seeberger, W7VSE, Medford, OR, will act as moderator during this fact-filled session. Vic is Oregon Section Traffic Manager, and will do his darndest to organize the ideas, requirements and suggestions coming from the panel members.

**Amateur Satellites: What's In Store For Us?** David Barnard, W7LSV, will talk about what is coming after OSCAR 10. He will provide information regarding the packet radio mode of the Japanese satellites. Dave is the Oregon state coordinator for AMSAT.

**The Evergreen Inter-Tie—Repeater Linking.** Russ Kroeker, N7HGE, will discuss plans to link Western Canada with Southern California. Equipment, system design and politics will be covered. Additional linking to the East is now underway in Washington and British Columbia.

**Advanced Packet.** Doug McMurdo, W7XI, a representative of the Oregon Packet Radio Association, will lead a session oriented towards the more advanced uses of packet radio. Included will be a presentation by Phil Dunn, KD7ME, on the use of packet for traffic handling purposes. Doug will cover the use of packet for emergency communications and public service. He will also discuss the transfer of computer programs over the air using packet. Other items of interest include networking, and even the use of packet to transfer audio and video information in a digital format.

**Antenna Potpourri.** Ken Glanzer, K7GCO, will cover several of his favorite antenna related subjects. Included will be the course "Basic SWR 101". Whether or not you pass the course, you will also be interested in his "One Knob Antenna Tuner" update, which will include a brief history and analysis of antenna tuners in general. He will also talk about high angle quad antennas and trap vertical antennas. Don't miss this session!

**EME.** Russ Miller, N7ART, will introduce you to the world of Earth-Moon-Earth (EME) communications. Russ began experimenting with EME in 1962. In those days he had trouble finding others to communicate with. He has subsequently worked 38 states and 17 countries via EME and is only one continent away from WAC.

**Some Common Myths About RF Power Amplifiers.** Dan Peters, NY6U, is the founder of Falcon Communications, a company which builds RF power amplifiers. He, quite naturally, often discusses power amplifiers with customers. These conversations make it clear that there are some basic misunderstandings which are widespread in the RF community. The purpose of his talk is to dispel a few of the myths.

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# H. STEWART DESIGNS

## THE DX LINE // SEA-PAC '87

H. STEWART DESIGNS stands for innovation, emphasis on quality and performance, and antennas that don't ask for an antenna farm to be mounted on!

We select our own projects, to be interesting, versatile, and generally different. We do our own design and build the items which make up the DX Line.

Here is the 1987 DX Line, beginning with:

ANTENNAS that are full-wave loop, high-performance, minimum-space items, 50-ohm feed, for your station.

The DX Hidden Asset, the 2-meter version still in its bird-house! Especially for locations where visible antennas are a no-no. Omni-directional when vertical, bi-directional when horizontal, broadbanded (5 or more % of resonant frequency), and gain comparable to a dipole. Ask to see the sample!

The II-DX Directional Antenna, a compact (turning radius, vertical polarization, 0.07λ; horizontal, 0.13λ) two-element base-station antenna with at least a full "S"-unit of gain over a dipole. Radiation pattern adjustable to give either deep nulls about 120° behind the heading or a maximum F/B ratio. 2:1 bandwidth about 2.5% of resonant "F".

ANTENNA MOUNTS with a difference. One new and one old.

The Magcup Mobile Antenna Mount, which is a variation on the customary magnet mount. It gives increased stability against knock-down by overhanging limbs, and increased ease of removal for periods of storage. Also, there's something special for the 2-meter fan who sometimes parks his trailer or motor home far from the nearest repeater or simplex contact! The Magcup accepts a short mast extension on the 2-meter II-DX and permits a quick change from mobile to high-gain directional antenna -- for overnight, or as long as the rig rides at anchor.

The DX Quickshift Mobile Antenna Mount, our old standby, patent #4,538,155. Not now in production, because we have more interesting things to do than be tied to a machine-shop production routine. On display, a few still available, and we'll consider license or purchase offers.

SEE THEM AT SEA-PAC and we'll show you and tell you more about them -- and make note of your comments re change and improvement.

See you at SEA-PAC, May 30 and 31, 1987

H. STEWART DESIGNS

PO Box 643

OREGON CITY, OR 97045

# SeaPac 1987 Schedule

Registration: Fri. 11-8 Sat. 8-4:30 Sun. 8:30-Noon Exhibits & Flea Market Sat. 9-4:30 Sun 9:30-Closing

## CONVENTION CENTER

Mariner Room

Dolphin Room

**Friday,  
May 29  
P.M.**

7:00	A Beginner's Guide to Ham Radio - Dee Lynch, KA7NPN
8:30	How High Can You Go? (Towers and the Law) - Hon. Greg Milnes, W7AGQ

**Saturday,  
May 30  
A.M.**

9:30	24 GHz & 47 GHz — New U.S. Distance Records and the Equipment We Used - Tom Hill, WA3RMX, and - Lynn Hurd, WB7UNU	The Mystique of Grounding Dr. Alan Chandler, K6RFK
10:30	Basic Packet Radio - Sperry Goodman, W7AZU	Open Wire Feed Lines Vs. Coaxial Cable - Lew McCoy, W1ICP

12:00 Lunch Break

**Saturday,  
May 30  
P.M.**

1:00	Novice Enhancement and Repeaters - Mark Walker, W7CLU	Operation China, 1984 Chip Margelli, K7JA, and Janet Margelli, WA7WMB
2:30	A Look at Homebrew SSB Equipment - Wes Hayward, W7ZOI	Basic Traffic Handling Brad Wells, KR7L
4:00	Let's Build A Receiver Roy Lewallen, W7EL	Advanced Traffic Handling Vic Seeberger, W7VSE

4:30 Exhibits Close. Banquet room opens, 6:45; Banquet at 7:00

**Sunday,  
May 31  
A.M.**

9:30	Open Wire Feed Lines Vs. Coaxial Cable - Lew McCoy, W1ICP	"Gain" and What Does It Mean To You? Dave Phemister, WB7ESV
10:30	Advanced Packet Radio Doug McMurdo, W7XI and - Phil Dunn, KD7ME	Some Common Myths About RF Power Amps Dan Peters, NY6U

1:00 Prize Drawing, Main Exhibit Room. Convention Closes, 2:00 P.M.

# of Seminars and Activities

Kids Krayons and Kartoons: Sat. 9-4:30 Sun. 9:30-Noon

## SHILO INN

Whale 3

Dolphin 1

Our Saviour

Lutheran Church

*See Special Events  
page for details.*

**"Gain" and What Does It Mean  
To You?**  
Dave Hemister, WB7ESV

**Putting Up a Tower  
(the Right Way)**  
- Ken Kopp, K0PP

**QRM in Amateur Radio Documentation**  
John Hettke, KD7WS

**Uncooperative Transmitter  
Identification (Fingerprinting)**  
Phil Ferrell, K7PF

**9:00 VE Exams, Pre-  
registered, only.**  
East wing.

**10:30 ORRC Meeting**  
West Wing

QCWA: Shilo Inn, Whale Rooms 1 & 2;

YL: Shilo Inn, Dolphin Tea Rooms 2&3

**History of Inverted Vee and  
Sloper, with New Variations**  
- Ken Glanzer, K7GCO

**Facsimile**  
- Don Bremer, KB6LO

**Meteor Burst: A New Dimension  
in Data Communications**  
- Tim Pettis, KL7WE

**Beginning to Contest...  
How and Why?**  
- Mark Nelson, AA6DX

**1:00 VE Exams, Walk-  
ins only; East wing.**

**1:00 Repeater Forum,**  
West wing.

**4:00 ARRL Forum,**  
West wing.

**Amateur Satellites: What's  
in Store For Us?**  
- David Barnard, W7LSV

**Antenna Potpourri**  
- Ken Glanzer, K7GCO

**The Evergreen Inter-Tie:  
Repeater Linking**  
- Russ Kroeker, N7HGE

**EME: What's It All About?**  
- Russ Miller, N7ART

**7:30 No-Host Breakfast,**  
Convention Center.



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**Tiny** & **Tough**





**NEW**

With ALINCO's advanced engineering and condensed technology, the ALR-22T 2-m FM Mobile Transceiver has been designed to be the ultimate in compact size with an impressive array of features, allowing maximum flexibility in mobile installation and ease of operation.

- 144-147.999 MHz
- Modifiable for CAP and MARS
- 25 Watt High - 5 Watt Low Power
- 21 Memory Channels
- 16-Key Autopatch Microphone with Up/Down Buttons

- 32 CTCSS Encoder Standard
- Programmable Band Scan
- Programmable Non-Standard Repeater Offset
- Ultra Compact & Light Weight
- Simple to Operate
- Dual VFOs

- Memory Scan Functions
- Large LCD Display
- Many Features, See Your Dealer

SOON TO BE AVAILABLE: 45 WATT 2-m, 25 WATT 450 MHz AND 25 WATT DUAL BAND VERSIONS

### ALM-203T

For Limited Time  
Price Includes extra Ni-Cd Battery  
and Speaker Microphone

See Your Dealer

**SPECIAL**

- 2Band HT
- Band A 140-150MHz
- Band B 150-160MHz (Receive Only)

### 2m FM Handheld Transceiver

- Built-in Sub Audible Tones
- Battery Save Function
- 12V DC/DC Converter

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Floyd Electronics - Collinsville, IL.  
The Ham Station - Evansville, IN.  
Harry Radio - Hartford, CT.  
Henry Radio - Los Angeles, CA.  
HR Electronics - Muskegon, MI.  
HRO - Anaheim, CA.  
HRO - Atlanta, GA.  
HRO - Burlingame, CA.  
HRO - Oakland, CA.  
HRO - Phoenix, AZ.  
Amateur & Advance Comm. - Wilmington, DE.  
Amateur Comm. ETC. - San Antonio, TX.  
AES - Milwaukee, WI.  
AES - Wickliffe, OH.  
AES - Orlando, FL.  
AES - Clearwater, FL.  
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Austin Amateur Radio Supply - Austin, TX.  
Barry Electronics - New York, NY.  
Burghardt Amateur Center - Watertown, SD.  
Delaware Amateur Supply - Delaware, DE.  
Doc's Communications - Rossville, GA.  
Earth Star Communications - Minneapolis, MN.  
EL Original Electronics - Brownsville, TX.  
EEB - San Diego, CA.  
HRO - Van Nuys, CA.  
HSC - Sunnyvale, CA.  
Juns Electronics - Culver City, CA.  
Kennedy Associates - San Antonio, TX.  
KJL Electronics - Cedar Grove, NJ.  
Madison Electronics - Huston, TX.  
Maryland Radio Center - Laurel, MD.  
Memphis Amateur Electronics - Memphis, TN.  
Michigan Radio - Mt. Clemens, MI.  
Missouri Consulting - Houston, TX.  
Missouri Radio Center - Kansas City, MO.  
N & G Electronics - Miami, FL.  
Northeast Electronics - Whitehall, PA.

P.C. Electronics - Arcadia, CA.  
Quement Electronics - San Jose, CA.  
Reno Radio - Reno, NV.  
Rivendell Associates - Derry, NH.  
Rogus Electronics - Southington, CT.  
Rosen's Electronics - Williamson, WV.  
Ross Distributing Co. - Preston, ID.  
Tel-Com Electronic Comm. - Littleton, MA.  
Texas Towers - Plano, TX.  
Texpco Sales Inc. - Burlington, Canada  
VHF Communications - Jamestown, NY.

## EXHIBITORS

Accurate Engraving Service, Portland, OR  
Advanced Electronic Applications (AEA), Lynnwood, WA  
ALINCO, Torrance, CA  
AMSAT, Oregon  
American Radio Relay League, Northwestern Division  
ARRL 1988 National Convention, Portland, Oregon  
Buds Specialties, Richland, WA  
Cascade Towers, Vancouver, WA  
C-COMM, Seattle, WA  
CQ Magazine, New York  
Curley's Engraving, Portland, OR  
EPO Software, Vancouver, WA  
Falcon Communications, Newport Beach, CA  
Farmers Mountain Repeater Assoc., Portland, OR  
Gene Hansen Co., Corrales, NM  
Hats For Hams, Pomona, CA  
Heath/Zenith, Vancouver, WA  
Heron Press, Silverton, OR  
H Stewart Design, Oregon City, OR  
ICOM America, Seattle, WA  
Larsen Electronics, Vancouver, WA  
Linn-Benton-Lincoln Emergency Repeater Assoc., Eugene, OR  
Motron Electronics, Eugene, OR  
Opto Electronics, Fort Lauderdale, FL  
Oregon Tualatin Valley ARC, Beaverton, OR  
Portland ARC, Portland, OR  
Portland Radio Supply, Portland, OR  
Quarter Century Wireless Assoc. (QCWA), Beaver State, Albany, OR  
Reno Radio, Sparks, NV  
Sunset Empire ARC, Astoria, OR  
Trio-Kenwood, Los Angeles, CA  
ULC Discount, Springfield, OR  
U.S. Army MARS, Oregon  
Willamette Valley DX Club, Portland, OR  
Yaesu, Los Angeles, CA  
Young Ladies Relay League, Oregon  
10-X International, Oregon

**Note:** Due to publication deadlines, we apologize if there are any exhibitors not included in the above listing.

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# CONTRIBUTORS

American Radio Relay League  
Dave Bell, W6AQ, Banquet Speaker  
Rick Palm, K1CE, ARRL  
Leland Smith, W5KL, QCWA Nat'l Director  
Rush Drake, W7RM, ARRL N/W Division Director  
Bill Shrader, W7QMU, ARRL N/W Division Vice Director  
Randy Stimson, KZ7T, Oregon Section Manager  
Greg Milnes, W7AGQ, Banquet Master of Ceremonies  
BS Typo-Graphics, Portland  
Canyon Printing, Beaverton  
Seaside School District, Seaside  
Seaside Safeway, Seaside  
Leggs Broadway Pharmacy, Seaside  
Our Saviour Lutheran Church, Seaside  
The Natural Nook, Seaside  
Ron Mayer, K7BT, (Printing)  
Bobbi Anton, Tupperware

## Seminars:

David Barnard, W7LSV  
Don Bremer, KB6LO  
Dr. Alan Chandler, K6RFK  
Phil Dunn, KD7ME  
Phil Ferrell, K7PF  
Ken Glanzer, K7GCO  
Sperry Goodman, W7AZU  
Wes Hayward, W7ZOI  
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Doug McMurdo, W7XI  
Russ Miller, N7ART  
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# PRIZE DRAWING INFORMATION

## MAIN PRIZE DRAWING

*Need Not Be Present To Win*

ICOM IC-735 HF Txcvr.  
KENWOOD TM-2530/A 2m. Mobile  
YAESU FT-727R 2m./450 HT  
AEA PAKRATT PK-232 TNC  
ICOM u2-AT 2m. HT  
YAESU FT-23R 2m. HT  
KENWOOD TH 21-BT 2m. HT  
LARSEN FB1-136 2m./220 Base Antenna

## HOURLY PRIZES

Posted in the lobby and on stage for two hours.

(Unclaimed prizes will be redrawn)

## EARLY BIRD

*(All 3 Given)*

SONY 7600-A Short Wave Receiver  
ASTRON RS20-M 20 amp. Power Supply  
BEARCAT 10-Channel HT Scanner

## BANQUET

HEATHKIT ID-1290 Weather Station  
5" AC/DC B/W Television

## Hourly Drawings

Winning numbers will be posted on-stage as well as in the lobby. The numbers will remain posted for two hours to enable those of you attending seminars the time to see if luck is with you. Prizes not claimed after two hours will be redrawn later. Winners please collect your prize in the Prize Room. The hourly giveaways are donated at no cost to the convention committee. We all may express our personal thank you to the commercial exhibitors by telling them so.

## Early Bird Prizes

The early bird prizes are a courtesy in appreciation to those who have registered in advance of opening day. Quite a large amount of money is required, early on, to pay the advertising and printing costs. Early registrants are benefactors to any event of this kind and a reward is fitting. Good luck to our 'early birds.'

## Banquet Prizes

These prizes are available to those who attend and pay for the dinner. The drawing is a special incentive provided by both the donor and convention committee. It is a fitting finale to an entertaining evening.

## Major Prize Drawing

You need not be present to win!! If you are a winner, your prize will be shipped to you. We will attempt to keep the drawing time to one hour. Major prizes are obtained at cost, or below, from the dealers and manufacturers and we take this opportunity to express our appreciation.

**GOOD LUCK TO YOU ALL!**

# No Sea-Pac in 1988!!

Due to the holding of 1988 ARRL National Convention in Portland on September 9-11, 1988, and because many of the Sea-Pac committee people are now and will be working on it; we have no choice but to devote all available time and efforts to that convention. We hope that most of you who are here this weekend will see your way clear to support such an important event, and that you will return to Seaside in 1989.

**73 in '88'**

Al Berg, WB7SIC  
Chairman

## Survey Results

As you might have noticed, we included a questionnaire in last year's registration packet (as we have for the past several years), in hopes that your suggestions might be used to make the Sea-Pac Convention even better. We appreciate the 'atta boys,' but most important are criticisms you might have had. This has helped us enormously in fine tuning the Convention. Parking, rain and other such things are in the hands of the Supreme Being and the Chamber of Commerce. We will continue to include you in the overall picture, as your comments are very important to us and, in the long run, to your enjoyment in attending.

## PRIZE DONORS

AEA	Hats For Hams
AMSAT	Heath/Zenith
Accurate Engraving	Heron Press
Alinco Electronics	ICOM America
American Radio Relay League	Larsen Electronics
Bud's Specialties	Motron Electronics
Curley's Engraving	Portland Radio Supply
EPO Software	Trio-Kenwood
Encomm	ULC Discount
H. Stewart Design	Yaesu

**Note:** All registrants, including convention sponsors, are eligible for prize drawings and/or contest awards.

**Note:** Due to publication deadlines, we apologize if there are any prize donors not included in the above listing.

## REGISTRATION BADGES

All committee members, and this includes the chairmen of the convention, are required to register. As such, we also ask that everyone else in attendance be registered. Please wear your registration badge while in the convention center. By doing so, you can help us avoid embarrassing confrontations at the entrance gate. Lost or forgotten badges are a source of grief to us and, worse, to you. We would like to see no problems and, quite surely, neither do you. Thanks, in advance, for your co-operation.

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\*Touch-Tone is trademark of AT&T



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- Latched group call output • LED personal-call indicator • Remote control locking/unlocking code can be programmed with different first digits I.E. #123 to unlock #123 to lock. • All on-board components provided with kits.

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AK-4K — PCB Kits **69.95** (Plus \$2.00 shipping and handling)

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## THINGS TO SEE & DO

**Astor Column.** Astoria.

**Columbia Lightship.** Moored at the Coast Guard Pier at the foot of 16th, Astoria.

**Maritime Museum.** 17th and Marine Drive, Astoria.

**Fort Astoria.** 15th & Exchange, Astoria.

**Flavel House.** Clatsop County Historical Society, 8th & Exchange, Astoria.

**Astoria Bridge.** A part of U.S. Highway 101, joins Washington and Oregon.

**Battery Russell.** Fort Stevens State Park.

**Peter Iredale.** Fort Stevens State Park.

**Fort Clatsop.** Museum, movie, tour replica of the fort, canoe landing and ranger demonstration.

**Salt Cairn.** Lewis and Clark Way, Seaside.

**Seaside Aquarium.** 2nd Ave. & Prom, Seaside.

**Turnaround.** End of the Lewis & Clark Trail. End of Broadway, Seaside.

**Tillamook Rock Lighthouse.** Island off Tillamook Head, best viewed from the point at Ecola State Park, Cannon Beach.

**Haystack Rock.** Third largest monolith, located in Cannon Beach.

**Ecola State Park.** Beautiful view of Haystack Rock and Tillamook Rock Lighthouse.

**Oswald West State Park & Short Sand Beach.** Highway 101 South.

**Nehalem Winery.** Highway 101 South.

**Tillamook Cheese Factory.** Tillamook.

**Tillamook Museum.** Tillamook.

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***Jantzen Beach***

***Portland, Oregon***



# CONVENTION COMMITTEES

## *Co-Chairmen:*

Al Berg, WB7SIC, Oregon Tualatin Valley ARC  
Doc McLendon, W7GWC, North Coast Repeater Association

## **NORTH COAST REPEATER ASSOCIATION COMMITTEE**

*Registrations, Convention Station,  
Banquet, Registration Desk,  
Ladies' Treasure Hunt*

Henry Desler, N7EYT  
Henry Goetze, W7CXK  
Bill Hosmer, W6LLC  
Nolan Marion, WB7TWM  
Maye McLendon

Linda Perales  
Tim Perales, KD7W  
Elmer Templeton, KA7BOO  
Tom Wagner, W7KLA

## **OTVARC COMMITTEES**

### *Treasurer:*

Bob Andrews, WB7DWD

### *Exhibit Aids*

David Nelson, WB7REC  
Wes Allen, K7WWG  
Darwin Durr, K7PSD  
Ben Beberness, KA7PWN  
Mike Boyd, N7DKQ

### *Ladies Programs*

Marvel Noyes, KA7TZT  
Val Roehl, KA7QEVE  
Fran Haag, NI7E  
Sue Benson, N7EPE

### *Security*

Steve Coan, KA7MOW  
Sue Benson, N7EPE  
Bill Reynolds, WB7DWT

### *Signs*

Bud Butterfield, KC7PS

### *Flea Market*

Roger Noyes, KA7RNN  
Steve Brice, NA7T  
Jeff Durr, KA7AKU  
Hanford Van Ness, KE7BB

### *Printing*

Ron Mayer, K7BT  
Lea Ball, AL7W  
Brad Beach, KA7JLD

### *Prizes*

Bud Butterfield, KC7PS  
Jim Ziegler, KA7TAC  
Ralph Karls, WB7VGS  
Gordon Bishop, KA7RNO

### *Seminars*

Alan Roehl, KO7B  
Stan Griffiths, W7NI  
Bill Winton, N7GRO  
Dee Lynch, KA7NPN  
Warren Knight, N7BIJ  
Pat Griffiths, KA7UFG  
Dale LeBarron, W7FBP

### *Exhibitors*

Randy Stimson, KZ7T  
Al Berg, WB7SIC

### *Testing*

Randy Cobb, KA7HJT

### *Banquet MC*

Greg Milnes, W7AGQ

**The North Coast Repeater  
Association  
and the  
Oregon Tualatin Valley  
Amateur Radio Club**

would like to take this opportunity to thank the many hard working individuals who have made the convention a success.

A special thanks to all of the clubs in the Pacific Northwest that were of such great help in advertising the convention.

We are deeply grateful to our many exhibitors for showing us their products. Without them, this would not have been a successful convention.

*See you at the*  
**1988 ARRL National Convention!**

Al Berg WB7SIC  
Doc McLendon W7GWC

***Have a Safe Trip Home***



**THIS IS AN  
ARRL SANCTIONED  
CONVENTION**

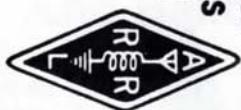


# Atlanta ARRL National Convention

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- Easy to operate!** Only 3 knobs and 8 keys on the front panel.
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- 10 memory channels.** Lithium battery backs up memory. Store frequency, offset, subtone. Two channels store the transmit and receive frequencies independently for odd split or cross band operation.
- Front panel-selectable CTCSS tone (when optional TU-7 is installed.)**

- Non-volatile operating system.** Even after memory back up cell dies, all operating features remain intact!

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- Programmable band scan and memory scan with memory channel lock-out.**

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- Selectable frequency step for quick and easy QSY.**

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- SP-50B Mobile speaker • PG-2N Extra DC cable • PG-3B DC noise filter • MC-60A, MC-80, MC-85 Base station mics. • MC-55 (8-pin) Mobile microphone • MA-4000 Dual band mobile antenna with duplexer (mount not included) • MB-11 Extra mobile mount



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